Instructions

for the

HEATH ZENITH

DRIVE MOUNTING ACCESSORY

Model H-88-9

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HEATH COMPANY
BENTON HARBOR, MICHIGAN 49022

595-2722-01

Heathkit

PARTS LIST

Check each part against the following list. Any part that is packed in an individual envelope with the part number on it should be placed back in the envelope after you identify it until all the parts are accounted for.

The key numbers correspond to the numbers on the "Parts Pictorial" in the separate "Illustration Booklet" on Page 1.

KEY No.	HEATH Part No.	QTY.	DESCRIPTION
	75-108	2	Small paper insulator
	75-818	1	5-3/4" × 7-3/4" paper insulator
	75-820	1	7-7/8" × 10" paper insulator
A1	134-1074	1	34-wire cable assembly
A2	134-1285	1	19-1/2" wire assembly w/capacitor and resistor
A3	134-1218	1	4-wire cable assembly
A4	204-2649	1	Bottom mounting bracket
A5	204-2650	1	Short bracket
A6	204-2665	1	Support bracket
A7	206-1440	1	Drive shield
B1	250-1264	16	6-32 × 3/8" hex head screw
B2	250-1240	2	6-32 × 7/8" black phillips head screw
B3	250-1314	1	8-32 × 3/8" hex head screw
B4	250-1310	1	8-32 × 3/4" hex head screw
B5	252-4	1	8-32 nut
B6	252-725	2	Brass insert
B7	253-741	5	Nylon shoulder washer
B8	254-1	1	#6 lockwasher
B9	253-45	7	#8 flat washer
B10	254-2	2	#8 lockwasher
B11	255-706	2	Round spacer
C1	255-805	1	Hex spacer
C2	261-18	1	Rubber spacer
C3	352-31	1	Thermal compound
C4	442-650	1	78H12 IC
C5	443-764	2	2114 RAM IC
C6	444-19	1	2316 ROM IC
C7	490-5	1	Nut starter
	597-2571-1	1	Configuration guide
		1	Modification instructions (see front cover for part number)

COMPUTER DISASSEMBLY

NOTES:

1. Be sure you read and completely understand each step in this Instruction Booklet before you perform the step. Do not proceed to the next step until you have completed the previous step according to the instructions.

2. Some of the instructions will not apply to your unit. Watch for applicable paragraph headings, or the words "if applicable..."

CABINET DISASSEMBLY

Refer to Pictorial 1-1 (Illustration Booklet, Page 2) for the following steps.

( ) Unplug the Computer line cord from its AC outlet.

( ) Position the Computer on your work area as shown in the Pictorial.

( ) Refer to inset drawing #1 on Pictorial 1-1 and insert the blade of a small screwdriver into the notch in the right latch plate. Then, as you lift upward on the front of the cabinet top, slide the latch plate toward the front of the Computer approximately 1/4". NOTE: On some models, the latch plate may slide rearward.

( ) In the same manner, open the latch plate on the left side of the Computer.

( ) Carefully tilt the cabinet top rearward.

( ) Unplug the wires to the fan in the cabinet top.

( ) Tilt the top rearward until it is straight up. Then carefully lift or slide the cabinet top out of its hinges and away from the Computer. Set the cabinet top aside temporarily.

NOTE: Perform only one of the next three sections, whichever is applicable to your Computer.

Computer with Front Panel Insert

Refer to Pictorial 1-2 (Illustration Booklet, Page 2) for the following steps.

( ) If applicable, heat the lower solder lug at CF and remove the sleeved braid coming from front panel insert screw CC.

( ) Remove the six panel insert mounting screws at CA, CB, CC, CD, CJ, and CL. You may discard the panel mounting plate, the panel insert, and (if applicable) the 6" sleeved braid. Save the mounting screws for use later.

Computer with Box Compartment

( ) Remove the two screws holding the compartment to the lower right side of the front panel. Remove the bracket and the compartment. Save the screws for later use.

Computer with H17-1 Floppy Drive

Refer to Pictorial 1-3 (Illustration Booklet, Page 3) for the following steps.

( ) Remove the drive mounting screws from A, CN, CR, and CP.

( ) Slide the floppy drive unit forward as you disconnect the large drive cable plug and the power plug.

( ) Pull the drive from the Computer and set it aside.

( ) Remove the support bracket hardware from the spacer at T1. Then remove the spacer from the transformer stud.

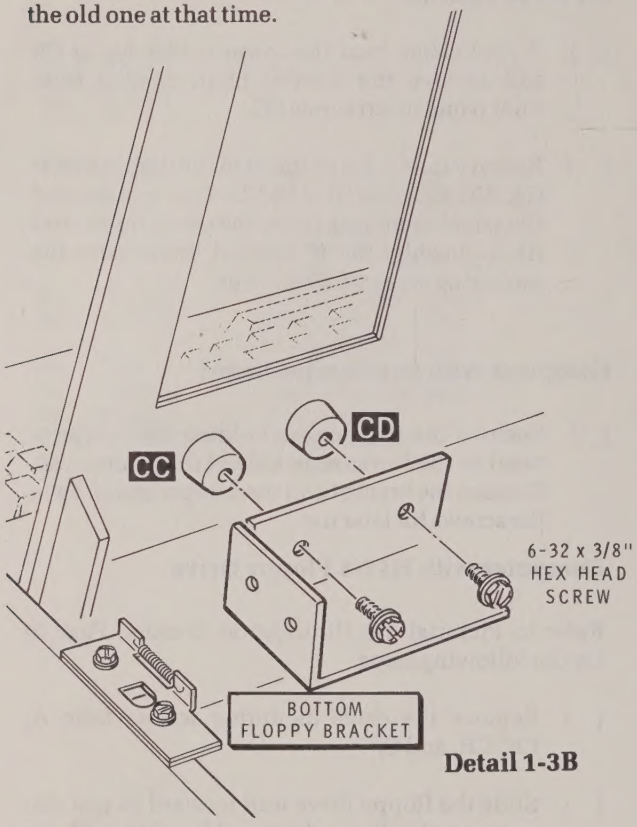
( ) Remove the four screws and the top floppy bracket from CA, CB, CK, and CL as shown in Detail 1-3A (Illustration Booklet, Page 3).

( ) Remove the mu-metal shield from the Computer.

( ) If applicable, remove the 6" braid coming from solder lug CF, on the lower corner of the CRT.

( ) Refer to Detail 1-3B and remove the bottom floppy bracket from studs CC and CD.

NOTE: Do not remove the large drive cable from the Computer rear panel at this time. If you are instructed to install a new drive cable later, you should remove the old one at that time.



Detail 1-3B

POWER SUPPLY DISASSEMBLY

Refer to Pictorial 1-4 (Illustration Booklet, Page 4) for the following steps.

NOTES:

1. The power supply in your Computer may not look exactly as shown in the Pictorial. Some Computer models may not have the regulator heat sinks mounted on the back of the power supply heat sink.

2. Check your Computer power supply and, if there is a regulator installed at U103, do **not** perform the steps in this section; proceed directly to "CPU Circuit Board Disassembly."

( ) On the power supply circuit board, disconnect the four connector plugs at P101, P102, P103, and P104.

Refer to Detail 1-4A (Illustration Booklet, Page 4) for the next two steps.

( ) Temporarily remove the four power supply circuit board mounting screws. Set the screws and the circuit board aside temporarily.

( ) Remove the four 6-32 × 1/4" spacers that secure the power supply heat sink to the cabinet base. Set the spacers and the heat sink aside temporarily.

CPU CIRCUIT BOARD DISASSEMBLY

IMPORTANT: Temporarily refer to Pictorial 1-6 (Illustration Booklet, Page 6). Check to see if components were previously installed at IC locations U520, U523, and U525. If they were, you may disregard all of the following disassembly information **except** the steps regarding the **cassette** interface circuit board and its interconnect cable, if these steps are applicable. If these steps do not apply, proceed directly to "Power Supply Reassembly" on Page 8.

Refer to Pictorial 1-5 (Illustration Booklet, Page 5) for the following steps.

( ) Remove the connector from P516 at the top of the CPU logic circuit board.

NOTE: In the following step, we suggest that you mark each plug (on a piece of tape, for example) before you remove it from its interface circuit board connector.

( ) Remove any plugs from the front edge(s) of the circuit board(s) mounted on the face of the CPU circuit board (for example, the cassette interface circuit board shown in the Pictorial).

( ) Remove the two screws at EE and EF that secure the accessory mounting bracket to the top of the CPU circuit board. Set the bracket and the screws aside temporarily.

( ) Remove any interface circuit boards from the CPU circuit board and set them aside temporarily. You may store away the **cassette** interface circuit board; this board is not compatible with your floppy drive accessory.

( ) After you disconnect and remove the cassette interface circuit board (if applicable), you should also remove the cassette interconnect cable coming from the rear panel. You may also store away this cable.

Refer to Pictorial 1-6 (Illustration Booklet, Page 6) for the following steps.

( ) Disconnect the cable connector from CPU plug P515 (upper left).

( ) Disconnect the connector from CPU plug P514 (center left).

( ) Disconnect the interconnect cable connector from CPU plug P513 (lower right).

( ) Remove the two mounting screws from the top corners of the CPU circuit board.

( ) Lift the CPU circuit board straight up and out of the mounting brackets and place it on your work area.

Set the remaining Computer assembly aside temporarily. This completes the "Computer Disassembly."

COMPUTER REASSEMBLY

CPU CIRCUIT BOARD REASSEMBLY

Refer to Pictorial 1-6 (Illustration Booklet, Page 6) for the following steps.

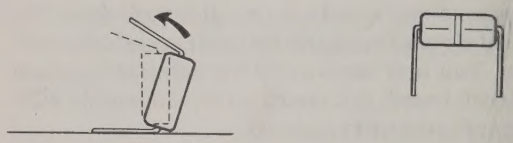
( ) Position the CPU logic circuit board component-side up on your work area.

CAUTION: Integrated circuits (ICs) are complex electronic devices that perform many complicated operations in a circuit. These devices can be damaged during installation. Read all of the following information before you install the ICs.

An IC packaged in a protective foam can be damaged by static electricity. Once you remove it from its protective foam, do not lay the IC down or let go of it until you install it in its socket. When you bend the leads of the IC, hold it in one hand and place the other hand on the work surface before you touch the IC to that surface. This will equalize the static electricity between the work surface and the IC.

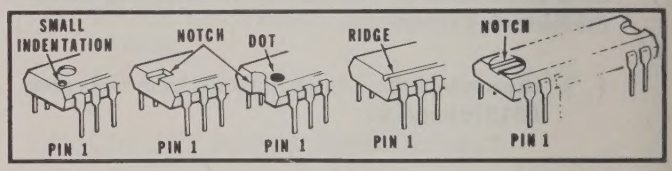
Detail 1-6A

The pins on the ICs may be bent out at an angle as shown in Detail 1-6A, and if this is the case, they will not line up with the holes in the IC socket. Do not try to install an IC without first bending the pins as described below. To do so may damage the IC pins or the socket, causing an intermittent contact.



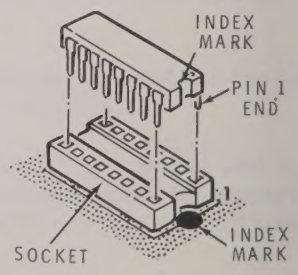
Detail 1-6B

Before you install an IC, lay it down on its side as shown in Detail 1-6B and very carefully roll it toward the pins to bend the lower pin-ends into line. Then turn the IC over and bend the pins on the other side in the same manner.



Detail 1-6C

When you install an IC, first you must identify the pin 1 end of the IC. This is illustrated in Detail 1-6C. Then make sure the pin 1 end of the IC is positioned over the index mark on the circuit board as shown in Detail 1-6D. Also make sure that all of the pins are started into the socket. Then press the IC firmly into the socket. NOTE: An IC pin can become bent under the IC and it will still appear as though it is correctly installed in the socket.



Detail 1-6D

Install the three ICs from this Accessory Kit on the CPU circuit board at the indicated locations.

( ) U520: 2316 IC (#444-19).

( ) U523: 2114 IC (#443-764).

( ) U525: 2114 IC (#443-764).

( ) Check to make sure that jumper JJ507 is at position B as shown in the Pictorial (connected to the two lower pins).

IMPORTANT: If you have also purchased any other expansion options for use with your Computer, refer to the appropriate instructions and perform any required operations on the CPU board (including IC installation, jumper or DIP switch settings), as directed in the expansion option Manual. Then return to this Modification Booklet to continue the reassembly of your Computer.

( ) Start the CPU logic circuit board back down into the Computer circuit board brackets. Slide the board approximately two-thirds of the way down.

( ) Reinstall the interconnect cable on CPU circuit board plug P513. Make sure the black wire is toward the top of the connector.

NOTE: Use the nut starter supplied with your kit to hold and start 6-32 hex head screws.

( ) Slide the circuit board down in the brackets until the top corners of the board are even with the tops of the brackets. Secure the upper corners of the CPU circuit board to the brackets as shown. Use the 6-32 × 3/8" hex head screws previously removed.

( ) On the left side of the CPU board, install the connector back onto circuit board plug P514. Make sure the yellow wire is at the top of the plug.

( ) Reconnect the cable coming from the terminal logic circuit board to CPU plug P515.

( ) Refer to the appropriate manuals to install (or reinstall) any of the interface circuit boards that are applicable. Do NOT reinstall the cassette interface circuit board; it will no longer be used with your Computer. Also refer to the "Configuration Guide" supplied with this kit.

Refer to Pictorial 1-7 (Illustration Booklet, Page 7) for the following steps.

( ) Temporarily secure the accessory mounting bracket to the top of the CPU logic circuit board at EE and EF with the 6-32 × 3/8" hex head screws previously removed. Be sure to position the front edge of each interface circuit board into its corresponding nylon guide in the mounting bracket.

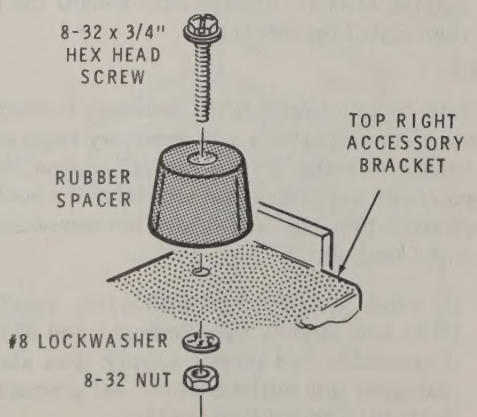
( ) In the same manner, if applicable, reinstall any memory expansion circuit boards and their mounting bracket on the left side of the CPU logic circuit board.

( ) Refer to the appropriate instruction booklet for any interface circuit boards and connect their corresponding cables as directed.

NOTE: Do **not** reconnect plug P516, on the top of the CPU circuit board, at this time.

( ) Remove and discard the 1-3/8" spacer from the top of the accessory mounting bracket.

( ) Refer to Detail 1-7A and secure a rubber spacer to the top of the right accessory bracket with an 8-32 × 3/4" hex head screw, a #8 lockwasher, and an 8-32 nut as shown.



Detail 1-7A

POWER SUPPLY REASSEMBLY

Refer to Pictorial 1-8 (Illustration Booklet, Page 7) for the following steps.

NOTE: Some models have a power transformer with a hex spacer at the location indicated in Detail 1-8A and some do not. If your unit has a spacer installed, perform the next step, otherwise skip the step.

( ) Refer to Detail 1-8A and remove the spacer from the indicated top corner transformer bolt and discard it. Then mount the new hex spacer securely over the transformer bolt. NOTE: If there is a green wire with a solder lug installed at this location, leave it in place. Skip the next step.

Detail 1-8A

( ) If your power transformer did not have a hex spacer installed on the power transformer bolt, it will have a nut installed. Check to see if there are enough exposed threads at the end of this bolt to install the new hex spacer supplied with this kit. If it does have sufficient threads, install the hex spacer on the end of the transformer bolt as shown in Detail 1-8A. If there are not enough threads, remove and discard the nut, then install the hex spacer.

NOTES:

1. Refer to your floppy drive accessory instruction booklet and perform any necessary steps as directed under the "Power Supply" section. When you have completed that section of the booklet, return to this page to continue the reassembly of your Computer.

2. If, when you checked previously, regulator U103 was already installed, and you did not disassemble the power supply, you should disregard this entire section and proceed directly to "Cabinet Reassembly."

Refer to Detail 1-8B (Illustration Booklet, Page 8) for the next two steps.

( ) Temporarily remove the transistor mounting hardware, the transistor socket and, if applicable, the regulator heat sink at U103.

NOTE: The IC pins are closer to one end of the IC than the other. Be sure to note this difference in the next step; you can correctly install the IC in only one direction.

( ) U103: Position the leads of a 78H12 IC (#442-650) through the rectangular opening in the regulator heat sink. Then mount the IC, the heat sink, and a transistor socket on the power supply heat sink as shown. Use the two 6-32 × 1/2" phillips head screws previously removed. Be sure to position the shoulders on the socket holes into the heat sink holes.

( ) Refer to Detail 1-8C (Illustration Booklet, Page 8) and secure the power supply heat sink assembly onto the top of the AC housing with the four 6-32 × 1/4" spacers previously removed. If your Computer has a long wire braid, secure the end of this braid to the heat sink at AL in the manner shown.

( ) Secure the power supply circuit board to the top of the 1/4" spacers as shown in Detail 1-8C. Use the four 6-32 × 1/4" screws previously removed.

( ) Refer to Pictorial 1-8 and replace the 2-hole connector shell on power supply plug P104.

( ) Install the power supply cable on P102 as shown.

( ) Install 4-hole connector shell on P103.

( ) Install the 8-hole connector shell on P101.

NOTE: If you have a voltmeter, make the following test. If you do not have a voltmeter, proceed directly to "Cabinet Reassembly."

( ) Set your voltmeter to read "volts DC," and connect the common lead to a bare portion of the power supply heat sink.

( ) Plug in the line cord and turn on the Computer.

NOTE: If you do not obtain the proper results in the following steps, refer to the "Troubleshooting" section of the applicable modification booklet. Do not proceed until you have found and corrected any problem. The voltages listed in the following steps are ±10%.

( ) Measure the voltage at TP1 on U102. The voltage should be approximately 5 volts DC.

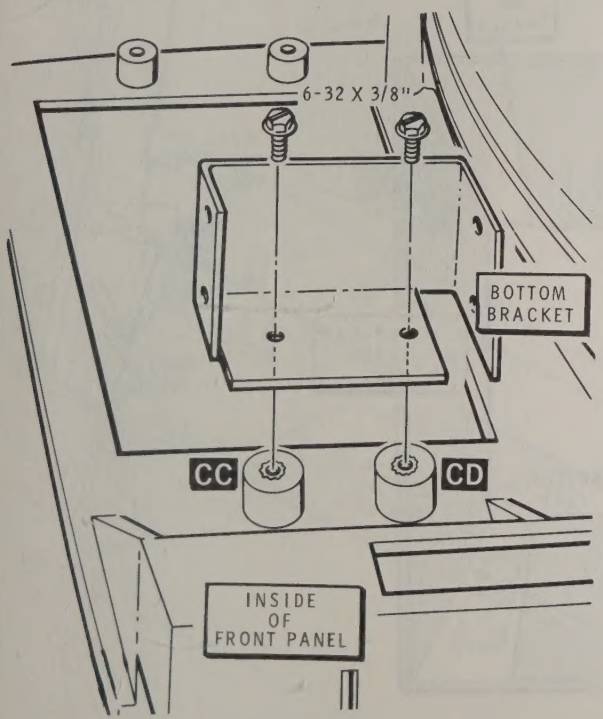
( ) Measure the voltage at TP2 on U103. The voltage should be approximately 12 volts DC.

( ) Turn off the Computer power and disconnect the line cord. Also disconnect the voltmeter.

( ) Temporarily refer again to Pictorial 1-6 (Illustration Booklet, Page 6) and install the 4-hole connector shell P516. Be sure to position the orange wire as shown.

CABINET REASSEMBLY

Refer to Pictorial 1-9 (Illustration Booklet, Page 9) for the following steps.



Detail 1-9A

CAUTION: In the following steps, when you work on the front panel, be careful not to bump the CRT or to come in contact with it while you are using tools to perform the steps. The neck and the pins of the CRT are especially vulnerable.

( ) Refer to the inset drawing and form a hook in the end of the capacitor lead on the end of the 19-1/2" wire assembly as shown. Crimp and solder this lead end to CRT solder lug CE.

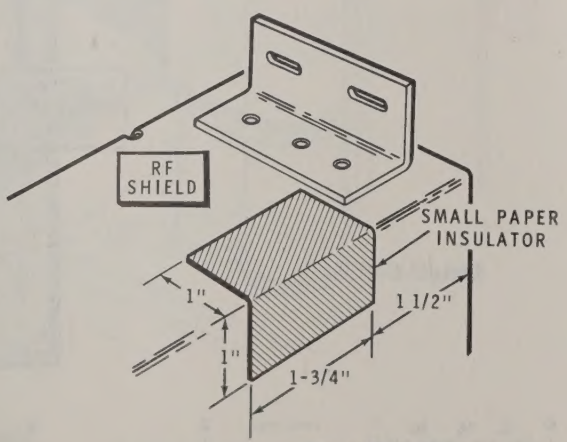
( ) Route the solder lug end of the assembly under the bottom edge of the CRT, and all the way across the front panel and out the right side of the chassis (as viewed from the front).

( ) Refer to Detail 1-9A and, using the nut starter, mount the bottom bracket on the inside of the front panel at CC and CD as shown. Use two 6-32 × 3/8" hex head screws.

NOTE: In the following steps, you will mount paper insulators on the RF shield. Be sure to read the step and locate the area on the shield where an insulator is to be mounted before you install it. Once you have pressed a paper insulator in place, it is very difficult to remove it to a different location.

( ) Fold one of the small paper insulators in the middle to form a 90-degree angle with the white paper backing on the inside.

( ) Refer to Detail 1-9B. Remove the paper backing from the small paper insulator and press the insulator in place on the top and side of the RF shield as shown. Be sure to observe the dimensions shown in the Detail.



Detail 1-9B

Refer to Detail 1-9C for the next three steps.

( ) Without removing the backing paper from the 5-3/4" × 7-3/4" paper insulator, fit the insulator in place on the inside of the RF shield as shown. If necessary, trim the insulator slightly to insure a proper fit.

NOTE: In the next step, tilt the insulator away from the inner shield wall until the bottom edge is in place. Then carefully press the insulator in place from the bottom edge upward.

( ) Remove the paper backing from the 5-3/4" × 7-3/4" paper insulator. Carefully position the insulator into the RF shield and press it in place against inner shield wall without the perforated screen as shown.

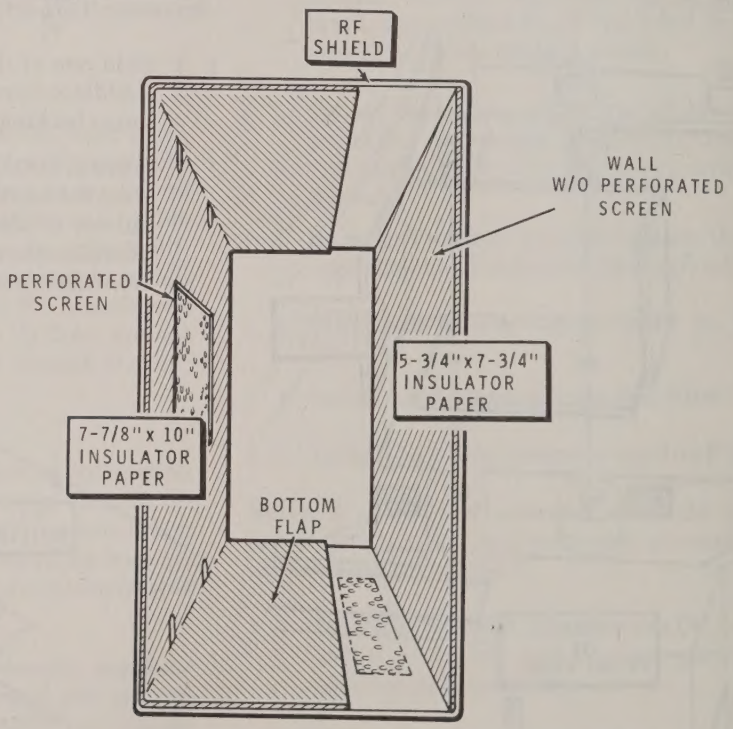
NOTE: The 7-7/8" × 10" paper insulator with a hole in the center can be correctly installed in only one manner. When you position it into the RF shield in the next step, make sure that you do not cover any of the perforated screen area in the side of the shield. To make sure it is properly placed, position the insulator into the shield before you remove the paper backing.

( ) Mount the 7-7/8" × 10" paper insulator onto the perforated inside of the RF shield in the following manner:

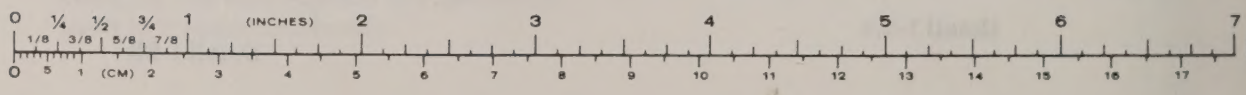
A. Remove the paper backing from the bottom flap of the insulator. Fold insulator upward and push the bottom corner tightly into the lower corner of the RF shield. Press the insulator in place.

B. Bend the center portion of the insulator toward the other side of the shield and peel away the paper backing. Press the insulator firmly onto the side of the shield.

C. Bend the top flap downward and remove the paper backing from it. Press the top of the insulator firmly onto the inside top of the shield.

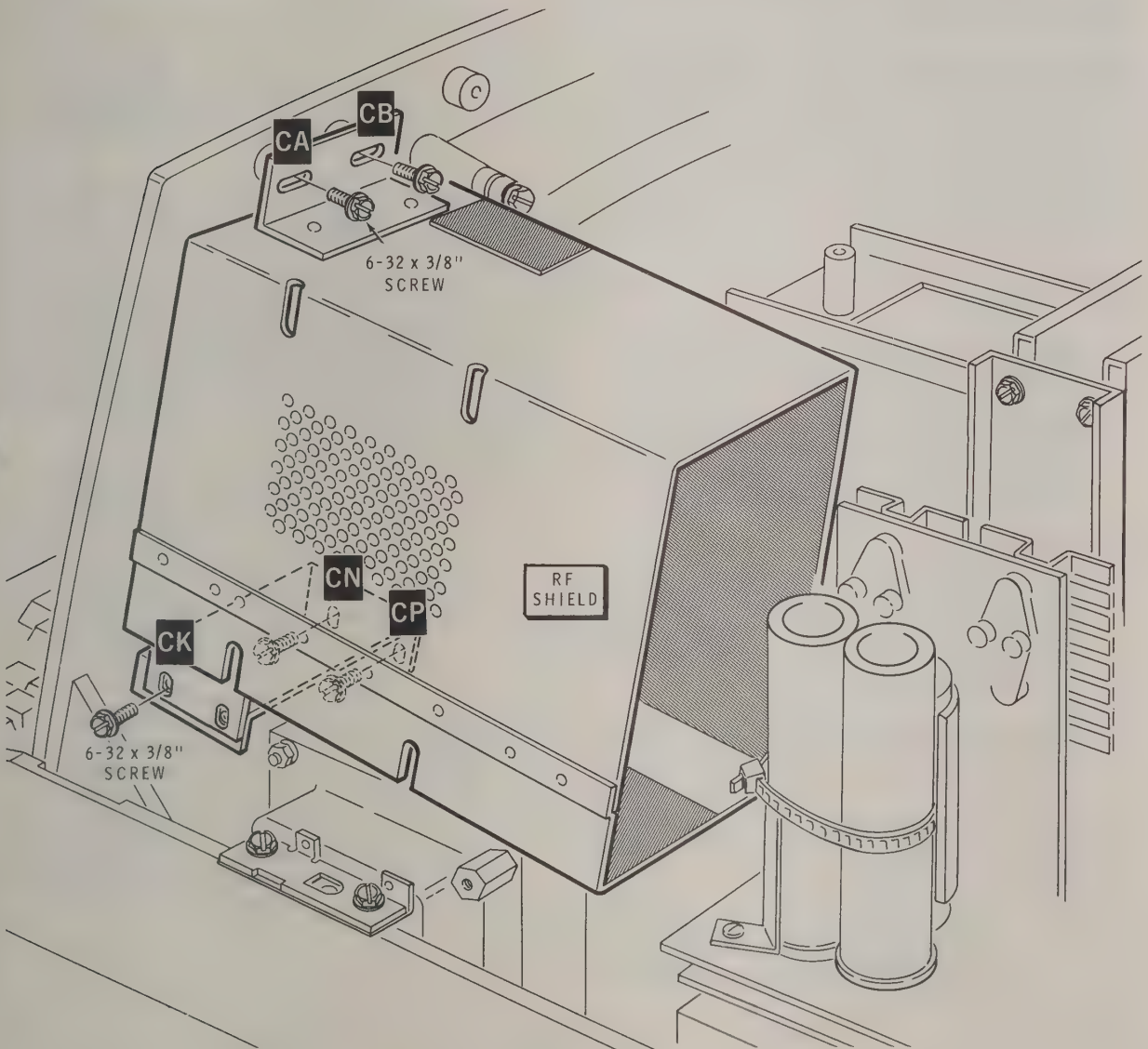


Detail 1-9C



( ) Refer to Detail 1-9D and mount the RF shield onto the inside of the front panel. Loosely secure the shield at CA, CB, CK, CN, and CP with 6-32 × 3/8″ screws. NOTE: Use the nut starter to hold and start the screws at CN and CP.

( ) Loosely secure the solder lug in the end of the 19-1/2″ wire assembly and the bottom of the RF shield to the bottom bracket at CL with a 6-32 × 3/8″ hex head screw as shown in Pictorial 1-9.



Detail 1-9D

FLOPPY DRIVE INSTALLATION

IMPORTANT: Refer to the appropriate manuals to program and configure your controller (interface) circuit and your floppy drive unit. The following steps will instruct you only to install the floppy drive in your Computer. All adjustments to the drive and controller components must be made prior to this installation.

NOTE: Make sure the resistor pack is installed in your drive assembly before you install it in the following step. Refer to the instruction sheet supplied with your drive assembly for the location of the resistor pack.

Refer to Pictorial 1-10 (Illustration Booklet, Page 10) for the following steps.

Refer to Detail 1-10A (Illustration Booklet, Page 10) for the next two steps.

( ) Push the short 4-wire extender cable on the floppy drive power plug as shown.

( ) Push the connector on the end of the 34-wire cable onto the floppy drive circuit board edge connector as shown. Be sure the connector is all the way onto the edge of the board.

( ) Making sure that the drive wheel is to the right, position the floppy drive into the opening in the front panel. Pull the two cables through the RF shield until they are out the rear of the shield. Do not push the drive all the way into the shield at this time.

( ) Connect the end of the short 4-wire extender cable onto the socket coming from the power supply.

( ) Route the 34-wire cable from the rear of the floppy drive as follows:

A. Carefully route the 34-wire cable to the left, around the rear edge of the RF shield, and in front of the power supply heat sink assembly.

B. Route the cable forward along the left side of the RF shield.

C. Fold the 34-wire cable near the back of the CRT and carefully push the connector onto the interface circuit board as shown in Pictorial 1-10.

NOTES:

1. Do not secure the floppy drive into the RF shield until after you have performed the rotational speed test.

2. If it becomes necessary for you to partially remove the floppy drive from the Computer to make an adjustment, the extra cable length allows for this. However, you should turn off the Computer power as you slide the drive in and out of the RF shield. Carefully work the 34-wire interconnect cable around the rear edge of the RF shield as you remove or reinstall the drive unit.

3. At some future time, if you wish to observe the rotational speed of the floppy drive (note the drive speed indexing on the drive wheel perforated on the right side of the floppy drive), the perforated right side of the RF shield will allow you to do this without removing the floppy drive from the Computer.

( ) Refer to the controller diagnostic section in your floppy drive software manual and perform the necessary tests as directed. When you have completed all the steps as directed in that manual, return to this booklet and continue with the following steps. NOTE: Additional helpful information can be found in the "H-89/Z-89 Configuration Guide."

Refer to Pictorial 1-11 (Illustration Booklet, Page 11) for the following steps.

( ) Position the floppy drive all the way into the RF shield and route the 34-wire cable around the RF shield as previously described.

( ) Push the floppy drive power cable down into the space between the power supply and the lower rear edge of the RF shield as shown.

( ) Place a nylon shoulder washer onto a 6-32 × 3/8" screw. Then install the screw and washer through the RF shield and into the top of the drive unit at CR as shown. Tighten the screw finger tight.

( ) In the same manner, install 6-32 × 3/8" hex head screws and nylon washers at CS and CT. Tighten the screws finger tight.

( ) Refer to Detail 1-11A and place a nylon shoulder washer on a 6-32 × 3/8" screw. Push the screw through the slotted end of the short bracket. Place another nylon shoulder washer on this screw so the shoulder is toward the tip of the screw. Loosely mount the screw and bracket with two shoulder washers through the RF shield and into the floppy drive at CU as shown in the Pictorial.

( ) Mount the other end of the short bracket to the hex spacer on the power transformer with an 8-32 × 3/8" hex head screw, a #8 lockwasher, and if necessary, enough of the supplied #8 flat washers to take up any space between the inside of the hex spacer and the bracket.

( ) Tighten the RF shield mounting hardware at CA, CB, CK, CL, CN, and CP.

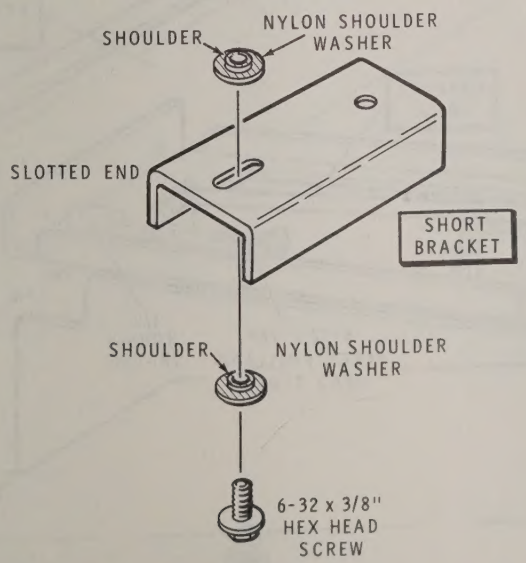
IMPORTANT: In the following steps, it is necessary to provide complete isolation between any chassis grounds and the floppy drive unit. The shoulder washers that hold the drive unit inside of the RF shield MUST be centered in the shield holes to provide the proper isolation.

( ) Making sure the shoulder washer is centered in the RF shield slot, tighten the mounting screw at CS.

( ) In the same manner, tighten the mounting screws at CR and CT.

( ) Tighten the mounting screw on the upper rear corner of the power transformer. Then, making sure that BOTH shoulder washers are centered in the shield and bracket slots at CU, tighten the mounting screw.

This completes the "Floppy Drive Installation."



Detail 1-11A

SUPPORT FRAME INSTALLATION

Refer to Pictorial 1-12 (Illustration Booklet, Page 12) for the following steps.

( ) Refer to Detail 1-12A (Illustration Booklet, Page 12) and install two brass inserts into the upper front panel bosses at CY and CX in the manner shown. Melt each insert into the boss until it is just below the outer surface of the boss.

NOTE: If you did not previously install the rubber spacer on the accessory mounting bracket, refer to Detail 1-7A on Page 7 and do that step.

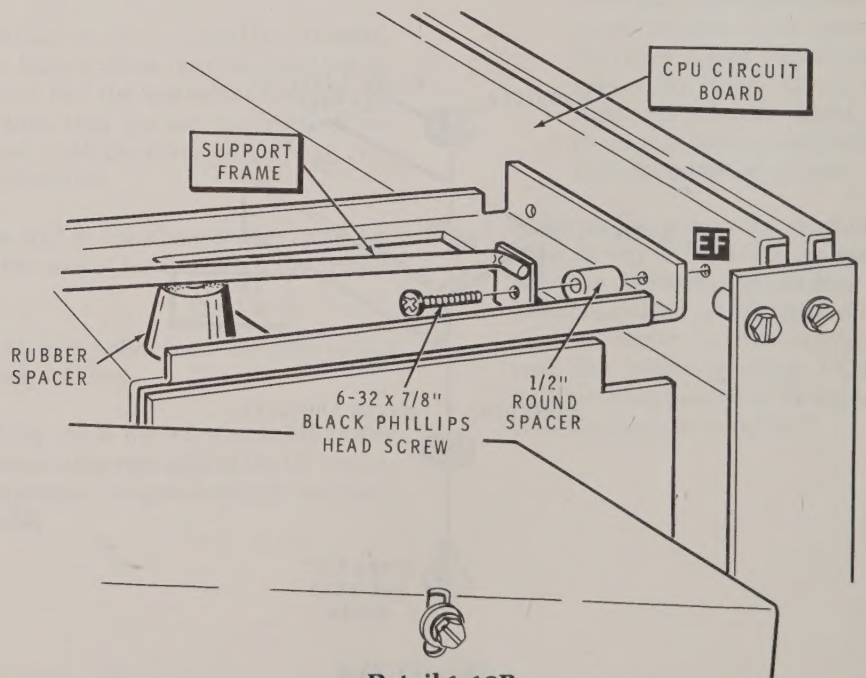
( ) On the top of the CPU circuit board, locate and temporarily remove the mounting screws at EF and EG. NOTE: Screw EF is on the right side of the accessory mounting bracket; screw EG may or may not secure the inside corner of a similar mounting bracket on the left side of your CPU circuit board.

( ) Position the support frame into the top of your Computer assembly as shown in Pictorial 1-12. Secure the front of the frame to the top of the front panel at CX and CY with two 6-32 × 3/8" hex head screws.

NOTE: Check the clearance on the back of support frame. In some cases, there will be approximately 1/2" of clearance between the frame mounting tabs and the top of the CPU circuit board. If this clearance does exist, perform the following step, then skip the second step. Skip the following step if there is no appreciable clearance.

( ) Refer to Detail 1-12B and secure the back of the support frame to the top of the CPU circuit board at EF and EG using two 1/2" round spacers and two 6-32 × 7/8" black phillips head screws. Proceed to "Final Reassembly."

( ) Secure the back of the support frame to the top of the CPU circuit board at EF and EG using two 6-32 × 3/8" hex head screws.



Detail 1-12B

FINAL REASSEMBLY

Refer back to Pictorial 1-1 (Illustration Booklet, Page 2) for the following steps.

( ) Refer to inset drawing #2 on Pictorial 1-1 and remove the paper backing from a small paper insulator. Then press the insulator in place on the front side of the fan shroud (inside the top cover) as shown.

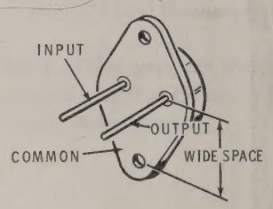
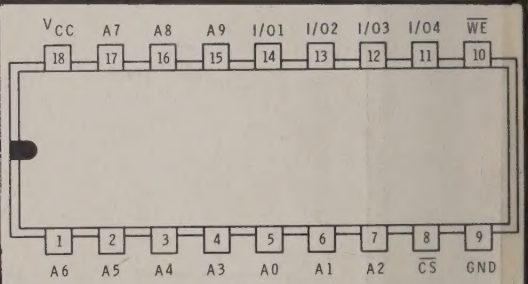
( ) Hold the cabinet top tilted rearward as shown. Then position the hinges on the cabinet top down into the Computer rear panel slots or slide the hinge-halves together.

( ) Reconnect the fan motor plug and socket.

( ) Tilt the cabinet top all the way forward and push the two side latch pins firmly down into the latch plates. If necessary, use a screwdriver to slide the latches to secure the latch pins.

This completes the installation of your modification kit.

SEMICONDUCTOR IDENTIFICATION CHART

HEATH PART NUMBER	MAY BE REPLACED WITH	DESCRIPTION	LEAD CONFIGURATION (TOP VIEW)
442-650	78H12	+12 V, 5A Regulator	
443-764	2114	1K × 4 Static RAM	
444-19	2316	Mask ROM